

## CLAIMS

1. A method for managing the integration of a plurality of disparate components into a computing network, the method comprising:

- (a) identifying the disparate components that require integration;
- (b) selecting from an integration framework an integration layer for integrating the disparate components, wherein the integration layer is selected from a plurality of integration layers including a presentation integration layer, an application integration layer, an environment integration layer, a content integration layer and a network integration layer; and
- (c) integrating the disparate components after selecting the integration layer.

2. The method according to claim 1 wherein selecting the application integration layer to integrate disparate applications into the network includes:

- mapping data from a first application into a format usable by a second application; and
- translating messages from the first application into a format usable by the second application.

3. The method according to claim 2 further including delivering a translated message from the first application to the second application.

4. The method according to claim 3 wherein translating the message includes utilizing a service that may be selected from the group consisting of an E-mail translation service, an electronic data interchange translation service, an object request broker translation service and a transaction processing translation service.

5. The method according to claim 4 wherein utilizing the E-mail translation service further includes:

- translating messages from a first application format of the first application to a central switch message format; and

thereafter translating the central switch message format to a second application format of the second application.

6. The method according to claim 4 wherein utilizing the E-mail translation service further includes:

utilizing a gateway to directly translate messages from a first application format of the first application to a second application format of the second application.

7. The method according to claim 4 wherein utilizing the electronic data interchange translation service further includes:

processing at least one transaction by the first application;  
translating the processed transaction using electronic data interchange translation; and  
sending the translated and processed transaction to the second application.

8. The method according to claim 1 wherein selecting the content integration layer to integrate content sources into the network includes sharing content among a first application and a second application on the network.

9. The method according to claim 8 wherein sharing content further includes:

a plurality of applications inserting data into a common database;  
updating data in the common database; and  
deleting data from the common database.

10. The method according to claim 9 wherein sharing content includes utilizing a service that may be selected from the group consisting of multi-media gateway services, non-relational database gateway services, SQL gateway services and web gateway services.

11. The method according to claim 1 wherein selecting the content integration layer to integrate content sources into the network further includes replicating content for a first application and a second application on the network.

5 12. The method according to claim 11 further including considering an amount of content to be replicated and selecting one of an extract data replication service or a capture data replication service depending on the amount identified.

13. The method according to claim 12 wherein replicating content includes utilizing services that may be selected from the group consisting of content capture services, content conversion services, content load services, coordination services and transport content services.

14. The method according to claim 1 wherein selecting the environment integration layer includes integrating disparate environments by selecting one of component translation, operating system emulation and security integration.

15. The method according to claim 14 further comprising setting up an alternate security server to guard against a primary security server of the security integration from failing.

16. The method according to claim 15 wherein the security integration may be selected from the group consisting of scripting, centralized log-in systems and a combination of scripting and centralized log-in systems.

17. The method according to claim 16 wherein selecting the combination of scripting and centralized log-in systems further includes authenticating with the primary security server in conjunction with scripting in order for a system user to obtain rights to run a script.

18. The method according to claim 1 wherein selecting the network integration layer to integrate disparate networks includes:

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establishing a logical connection between a first node of a first network and a second node of a second network;

maintaining the logical connection between the first node of the first network and the second node of the second network; and

terminating the logical connection between the first node of the first network and the second node of the second network after accessing information from the second node of the second network.

19. The method according to claim 18 wherein integrating disparate network further includes selecting services from the group consisting of a foreign protocol and a protocol translation.

20. The method according to claim 19 wherein the protocol translation services may be selected from the group consisting of network layer integration and data link layer integration.

21. The method according to claim 1 wherein selecting the presentation integration layer to integrate different systems includes:  
capturing user actions;  
generating a resulting event based on the user actions;  
presenting data to the user based on the resulting event; and  
assisting in managing a dialog flow of processing between the user and the network.

22. The method according to claim 21 wherein the presentation integration layer includes selecting a service from the group consisting of screen scraping and terminal emulation.

23. A method for utilizing an application integration layer to integrate a plurality of disparate applications into a computing network, the method comprising:

- (a) identifying the disparate applications that require integration;
- (b) selecting from an integration framework an integration layer for integrating the disparate applications, wherein the integration layer is

selected from a plurality of integration layers including a presentation integration layer, an application integration layer, an environment integration layer, a content integration layer and a network integration layer;

(c) after selecting the application integration layer, selecting an integration service from at least one mapping service or at least one translating service where the translating service is selected from the group consisting of an E-mail translation service, an electronic data interchange translation service, an object request broker translation service and a transaction processing translation service; and

(d) utilizing the selected integration service to integrate the disparate applications into the computing network.

24. The method according to claim 23 wherein utilizing the E-mail translation service further includes:

utilizing a gateway to directly translate messages from a first application format of the first application to a second application format of the second application.

25. The method according to claim 23 wherein utilizing the electronic data interchange translation service further includes:

processing at least one transaction by the first application;  
translating the processed transaction using electronic data interchange translation; and  
sending the translated and processed transaction to the second application.

26. The method for utilizing a content integration layer to integrate a plurality of disparate content sources into a computing network, the method comprising:

(a) identifying the disparate content sources that require integration;

(b) selecting from an integration framework an integration layer for integrating the disparate content sources, wherein the integration layer is

selected from a plurality of integration layers including a presentation integration layer, an application integration layer, an environment integration layer, a content integration layer and a network integration layer;

(c) after selecting the content integration layer, selecting an integration service from the group consisting of multi-media gateway services, non-relational database gateway services, SQL gateway services and web gateway services; and

(d) utilizing the selected integration service to integrate the disparate content sources into the computing network.

27. An integration architecture framework for use in the integration of disparate components into a computing network, comprising:

(a) a presentation integration layer to integrate computer-user interfaces;

(b) an application integration layer to integrate at least one application message between a first application and a second application;

(c) an environment integration layer to provide sign-on security to the computing network;

(d) a content integration layer to provide for the sharing of content between the first application and the second application; and

(e) a disparate network integration layer to connect a first node of a first network and a second node of a second network;

(f) wherein the layers (a) – (e) cooperate to integrate disparate components into the computing network in a way that appears transparent to a user.

28. The framework according to claim 27 wherein the application integration layer further includes:

a data mapping application to map data from the first application into a format usable by the second application; and

a message translating application to translate messages from the first application into a format usable by the second application.

29. The framework according to claim 28 wherein the computing network delivers a translated message from the first application to the second application.

30. The framework according to claim 29 wherein the message translating application may be selected from the group consisting of an E-mail translation service, an electronic data interchange translation service, an object request broker translation service and a transaction processing translation service.

31. The framework according to claim 27 wherein the content integration layer utilizes a service that may be selected from the group consisting of multi-media gateway services, non-relational database gateway services, SQL gateway services and web gateway services.

32. The framework according to claim 31 wherein the content integrating layer utilizes a service that replicates content for a first application and a second application on the network.

33. The framework according to claim 32 wherein the architect considers an amount of content to be replicated in determining whether to utilize an extract data replication service or a capture data replication service.

34. The framework according to claim 32 wherein the replication service may be selected from the group consisting of content capture services, content conversion services, content load services, coordination services and transport content services.

35. The framework according to claim 27 wherein the environment integration layer includes integration services that may be selected from the group consisting of component translation, operating system emulation and security integration.

36. The framework according to claim 35 wherein the security integration may be selected from the group consisting of scripting, centralized log-in systems and a combination of scripting and centralized log-in systems.

37. The framework according to claim 27 wherein the network integration further includes a logical connection between a first node of a first network and a second node of a second network, wherein the logical connection between the first node of the first network and the second node of the second network is maintained until information is accessed from the second node of the second application, thereafter the logical connection is terminated.

38. The framework according to claim 37 wherein the network integration layer includes integration services that may be selected from the group consisting of foreign protocol and protocol translation.

39. The framework according to claim 38 wherein the protocol translation may be selected from the group consisting of network layer integration and data link layer integration.

40. The framework according to claim 39 wherein the presentation integration includes integration services that may be selected from the group consisting of screen scraping and terminal emulation.

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